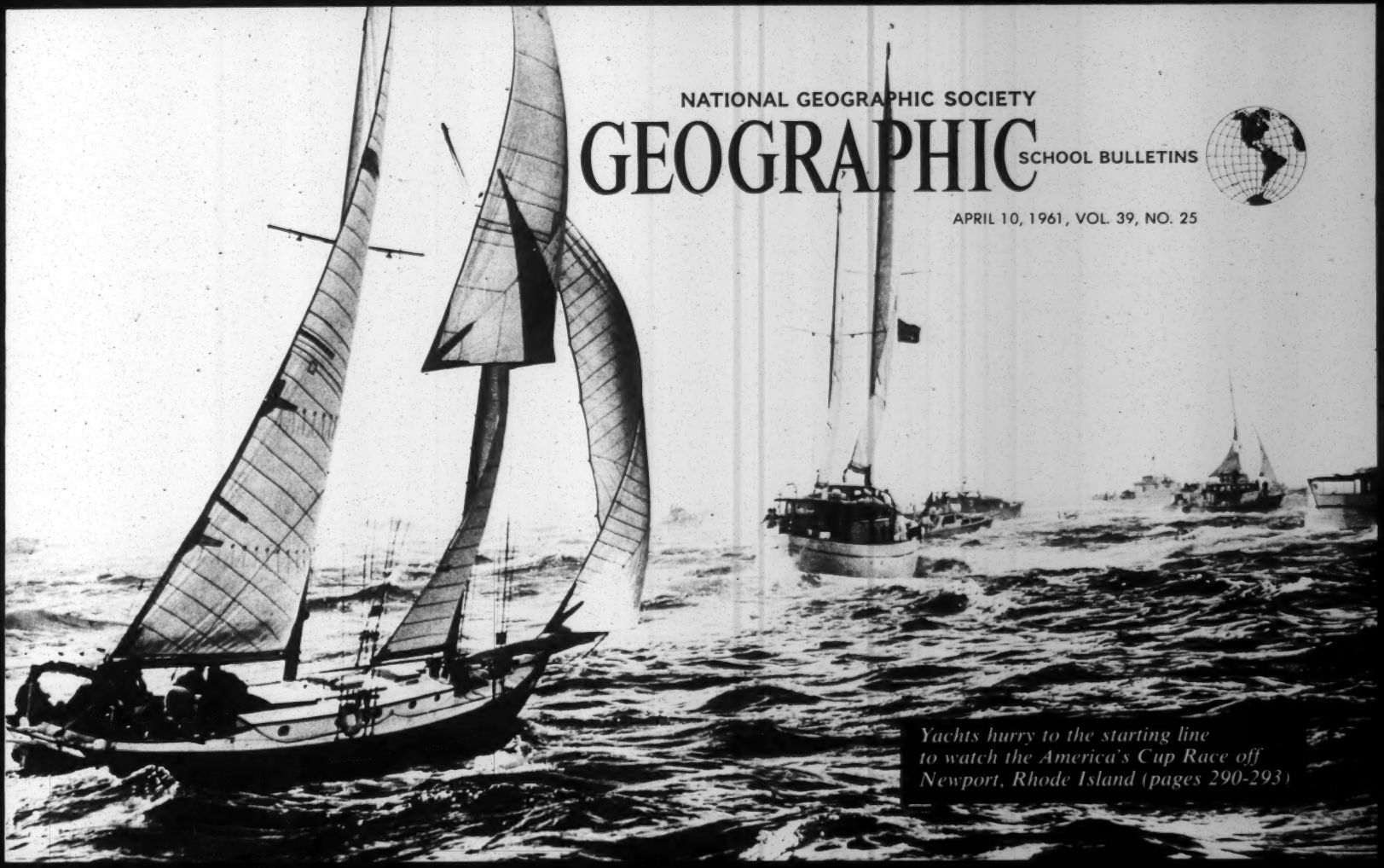

NATIONAL GEOGRAPHIC SOCIETY

GEOGRAPHIC SCHOOL BULLETINS

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Yachts hurry to the starting line to watch the America's Cup Race off Newport, Rhode Island (pages 290-293)

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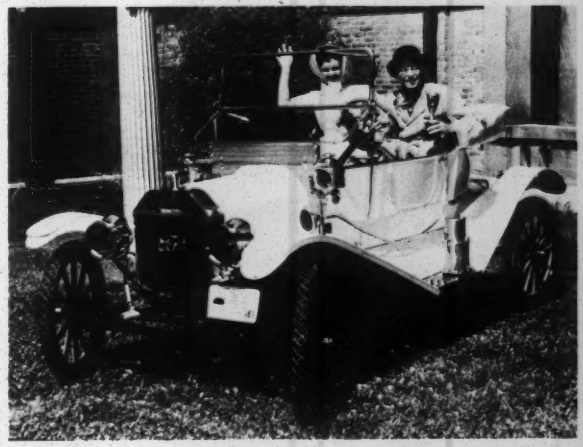
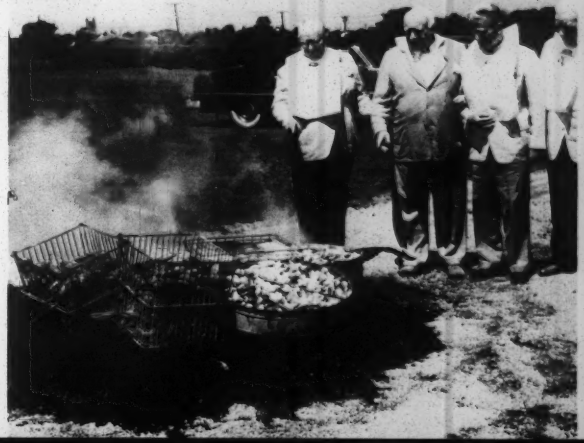
delphia, the General Assembly of "Rhode Island and Providence Plantations" declared itself free from Great Britain. To mark the event, Newport joins in celebrating Rhode Island Heritage Week beginning April 29 this year.

The revolution gave birth to a new nation, but it ended Newport's Golden Age. The town was virtually destroyed in the war. Not until another revolution – the industrial revolution – did it revive. Newly rich millionaires discovered its cool summer breezes and quickly transformed it into one of the gayest watering places of the Gay Nineties. Nonconformists to a man, they built weird and wonderful mansions along its shoreline.

Today Newport's past presents a colorful backdrop for new activities. The millionaires have given way to the millions. Tourists turn off turnpikes onto the ferries that stitch Aquidneck Island, site of the town, to mainland Rhode Island.

Sport fishermen (far right) go out after the big ones at the annual United States Atlantic Tuna Tournament at nearby Galilee. Older sports (right) wait for the seafood to come to them.





Newport's summer merry-go-round attracts thousands to a wide variety of events. Vintage auto enthusiasts, above left, proudly parade their cars on a mansion's emerald lawn. Successful fisherman, above, guides 100-plus pounds of tuna toward the scale. Left: Members of the exclusive Clambake Club hungrily watch their lunch of lobsters and clams steam over seaweed.

UMI

COVER. DAVID S. BOYER, NATIONAL GEOGRAPHIC STAFF

Rhode Island's Historic Newport

FROM THE BEGINNING, Newporters were an independent lot. The city's original settlers, followers of Roger Williams, broke away from the intolerance of the Massachusetts Bay Colony to found Newport in 1639. Soon other nonconformists, Quakers, Jews, Congregationalists, Baptists, and Moravians, added their skills and churches to the growing seaport at the mouth of Narragansett Bay.

Photographs by Arthur P. Miller, Jr., National Geographic Staff

By 1680 some 120 Newport-owned, Newport-built ships sailed the trade lanes carrying Rhode Island's corn, tobacco, sheep, horses, hemp, fish, and whale oil. Newport grew to rival Boston, Philadelphia, and New York. It became co-capital of Rhode Island; the colony's General Assembly held alternate sessions in Newport's Colony House, left, and at Providence. Providence became the sole capital in 1901.

But Newport's tolerance led it down strange paths. Its merchants entered without compunction into the Triangular Trade. Importing molasses from the West Indies, they distilled it into rum, shipped the rum to Africa in exchange for Negro slaves who were sold to West Indies plantation owners for more molasses. With every turn of the screw, Newporters squeezed another measure of profit.

Whispers of revolution, of course, were sure to fan the colony's independent spirit. On May 4, 1776, fully two months before the Declaration of Independence at Phila-

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Many a visitor who comes to Newport on Navy orders or to fish or sail stays for a history lesson. Newport shows a continuous spectrum of architecture spanning three centuries. Its Preservation Society encourages the restoration of fine Colonial homes like that of Henry Collins, above, a sea captain who owned a ship for each letter in the alphabet.

In contrast to the simplicity of the Colonial homes bordering the harbor stand the mansions fringing Newport's seaward edges. Here are Swiss chalets, French castles, English manor houses, columned Greek showpieces, Italian High Renaissance villas, and Victorian summer houses.

The jewel of the collection is "The Breakers," the tremendous *palazzo* built for Cornelius Vanderbilt II in 1897. Visitors to its gilt and crystal dining room, right, can easily visualize the days of footmen in silk knee breeches, and gowned ladies sweeping across parquet floors. A.P.M.

NATIONAL GEOGRAPHIC PHOTOGRAPHER B. ANTHONY STEWART

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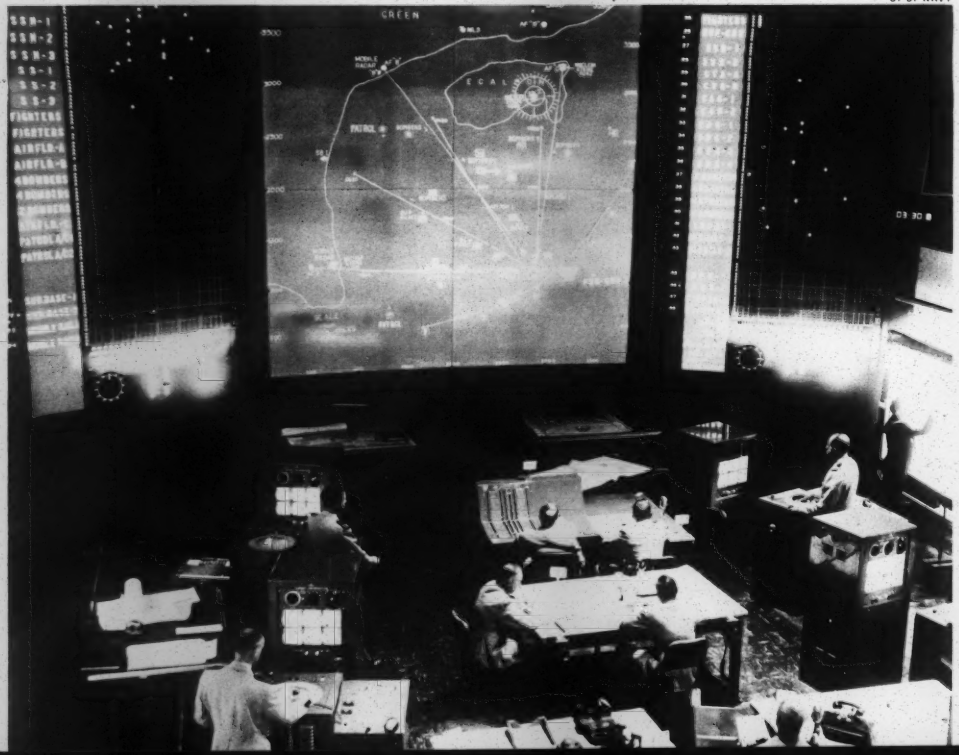
Music draws devoted thousands. The annual week-long "Carnival of Music" brings some 8,000 lovers of serious music. Another week, folk singers take the stage. Jazz buffs, however, saw Newport's best known musical activity come to an untimely end last year. The Newport Jazz Festival drowned itself in a flood of youthful exuberance, but not before the summer jazz idea had spread to other parts of the United States and abroad.

Later, "Tennis Week" entices Newport society into the rambling, shingled Casino to watch the matches. Richard Sears won the first U. S. national tennis title here in 1881. The "Nationals" have since been moved to a bigger stadium at Forest Hills, Long Island, but the Newport Invitation Tournament still attracts the world's best amateur players.

U. S. NAVY



The magnet that draws many excursionists to Newport each summer is blue water. Summer fills Narragansett Bay with boats of every description. The sailing season opens in June with an ocean race, in even years the Newport to Bermuda contest.

In an America's Cup year, the harbor simply overflows (see cover). City fathers are now busy making plans for the seventeenth in this celebrated series of international sailing races in the summer of 1962. The U. S. defender will meet a challenger chosen from the best boats of the British Commonwealth.

A well-protected harbor accounts for Newport's "biggest industry," the Navy. One hundred destroyers and tenders of the Atlantic Destroyer Force are based here. Within one of the gray buildings of the Naval War College, left, students fight wars by electronics. "Battle commanders" feed orders to their "fighting units" into an electronic brain, then watch their strategy unfold on a 15-foot screen.

each other, allowing more division of labor. Specialists could devote more and more time to the work they did best.

Some of these early river dwellers naturally specialized in making boats—dugouts, hide-covered baskets, vessels fashioned from bundles of reeds; in some cases even pottery boats. These were the ancestors of the ocean-worthy ships that first tied the continents together.

With their fertile plains, plentiful water, and ready transportation, the river valleys became the centers of civilization. Despite the coming of railroads, highways, and airlines, all major cities in the world are still located on water—rivers, lakes, or oceans.

Every new device to multiply man's muscles found use on the waterways. Sails harnessed the winds, steam engines harnessed coal, newer motors tapped the power of oil and gasoline. It was no surprise that the first vehicles powered by the splitting atom were ships.

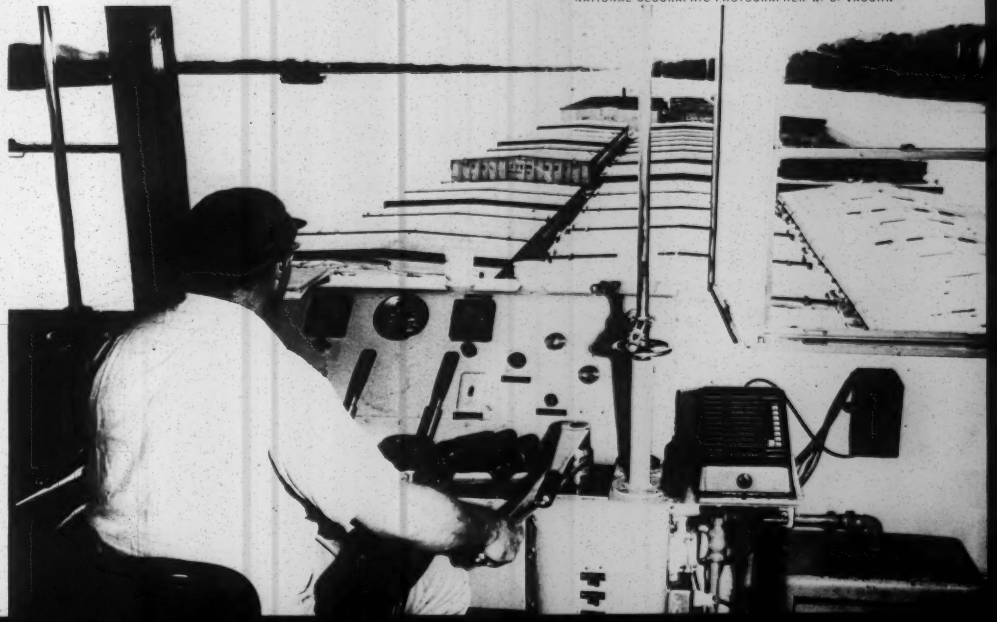
Newer forms of transportation have never outmoded the river. The mighty Saturn rocket, designed to explore the moon, will move by river barge from its birthplace at Huntsville, Alabama, to Cape Canaveral for launching.

Bulky goods still move most easily while afloat. In the United States the chief waterway system is made up of the Mississippi and its tributaries, spreading up the center of the country like a giant tree. While many mourn the vanished paddle-wheel steamboats, modern diesel towboats now move more tonnage in a year than the steamers did in ten. The captain at right steers his string of barges with a lever. Some such "tows" are longer than an ocean liner.

Where no adequate rivers exist, modern man builds his own: canals. While some, unable to compete with other movers of goods, have fallen into disuse (see next story), others are booming. Waterways combine with mineral resources to form such industrial complexes as the Ruhr (see *Geographic School Bulletins* March 13, 1961). Even the huge St. Lawrence Seaway, which ties the center of the North American continent to the Atlantic Ocean, is, in function, only a controlled river. F.S.

•Future articles in this series will discuss the river's use for power and irrigation, recreation along the river, and the destruction of rivers by pollution.

NATIONAL GEOGRAPHIC PHOTOGRAPHER W. D. VAUGHN



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The Living River IV The Burden Bearer

A STONE THROWN into the river sinks; a log floats. But if the stone is placed on the log, both float.

Whatever "ignorant savage" first noticed this fact started a revolution that affects each of us today.

He had discovered easy transportation. Probably before the first animals were domesticated to add their muscles to man's puny strength, men living along the rivers had discovered this way to multiply their brawn. A boulder that exhausted six men to move on land could be towed through the water by a child—if buoyed by some form of boat.

You can float easily downstream on a log but the log will spin you overboard unless you are well balanced. To gain stability, two or more logs could be lashed together. The resulting raft does not tip so easily, but is almost impossible to paddle or pole upstream. So, eventually, almost all primitive cultures discovered the dugout. Sitting inside the hollowed log, the boatman lowered his craft's center of gravity to below the waterline. While still not exactly stable, the dugout rode upright much more easily than the log and kept its cargo dry.

In many parts of the world the dugout is still in use—including northern Ecuador, where boatmen pole visitors up swift-flowing rivers (left). Today, logs usually move only themselves, in timbering operations such as those along Idaho's Clearwater River where lumberjacks loosen a jam (below).

Once men had boats they could control, the human picture changed. Tribes could more easily trade goods with

ROSS HALL (BELOW) AND G. M. DYOTT

THOMAS J. ABERCROMBIE, NATIONAL GEOGRAPHIC STAFF

Historic hulk: Spring floods swirl through the battered remains (left) of an old canal barge stranded near Hancock, Maryland. Most of the year it is high and dry.

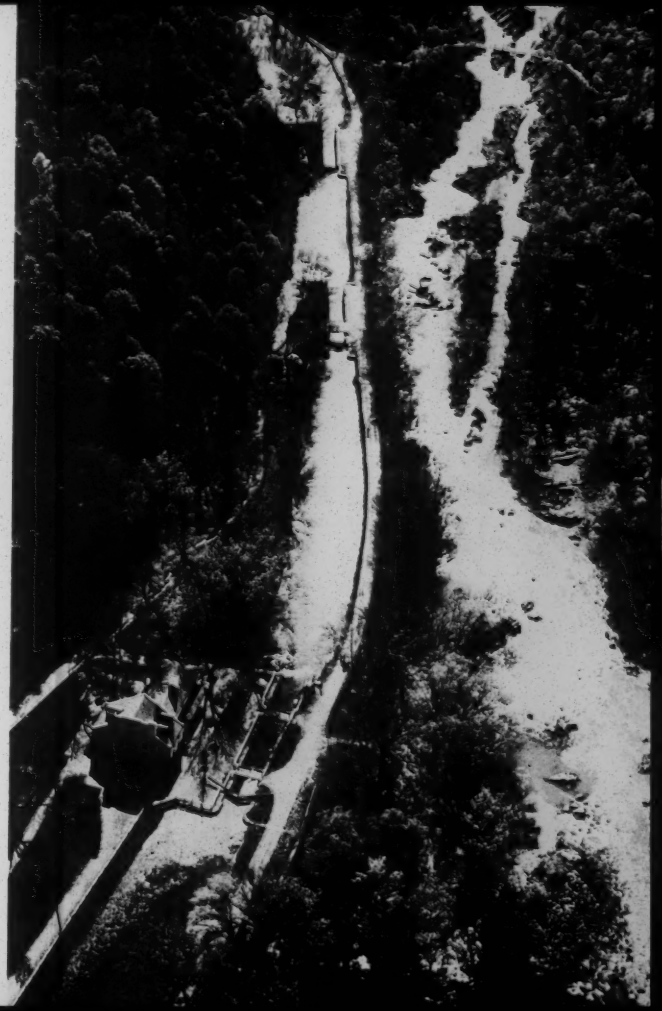
Rough water and smooth: unnavigable rapids, right, roar past the calm canal 10 miles from Washington. Great Falls Tavern, lower left, became a canal museum. Aerial view shows three of six locks (like those below) that lowered barges 41 feet in the falls area.

mac. This plan proved impractical because the river was too rocky and undependable for use by barges.

Between 1828 and 1850 the C & O Company dug its continuous controlled waterway. Its objective was Pittsburgh, but it got no farther than Cumberland.

The railroads and floods finally put the canal out of business. It has been abandoned since a 1924 flood.

The old ditch may yet breathe new life. In his last days of office, President Eisenhower proclaimed it a national monument to preserve its history and make use of its recreational possibilities for canoeists, hikers, fishermen, and bird-watchers. Legislation pends in Congress to turn it into a national park. L.B.



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THE C & O CANAL

Long-Quiet Waterway Is the Newest National Historical Monument

NOT FAR from the White House a mule team tows the *Canal Clipper* along a famous waterway that could be half a world and a full century away—the Chesapeake and Ohio Canal.

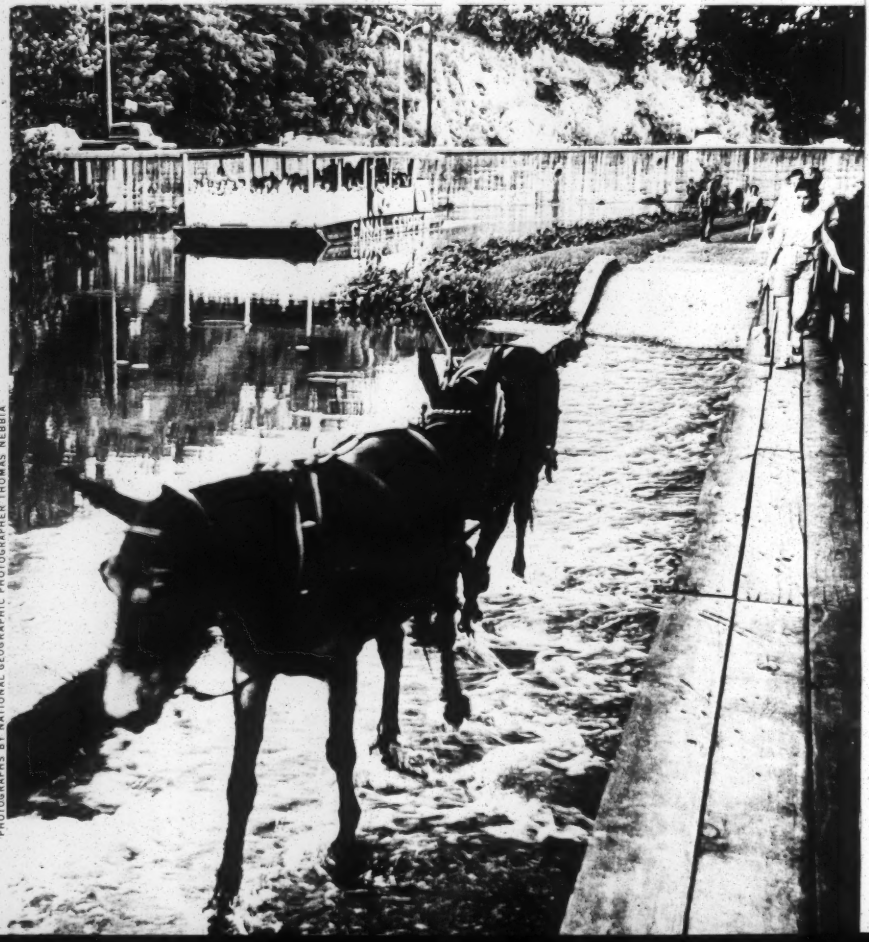
Although the canal kept 700 mule-powered barges busy in its heyday, the sightseeing barge is the only boat of any size using it today. Except for a restored 23-mile stretch between Georgetown, D. C., and Seneca, Maryland, and a 5-mile section farther west, the 185-mile canal is dry, choked by weeds and trees, its walls crumbled.

Following the Maryland bank of the Potomac River, the C & O carried to Georgetown the valley's wealth: millions of tons of coal, grain, lumber, and flour.

Boatmen lived aboard their barges, affectionately named *Katie Darling, Jenny Lind,* or perhaps *Belle.* Relief mules rode in a forward stable. Dogs and cats dozed on deck. Children, tethered lest they fall overboard, played about the cabin. When the sun shone, mother hung out the wash.

On the trip to Cumberland, Maryland, the northwest terminus (record time: 62 hours), 74 locks raised the barges from near sea level to 620 feet. When a lock came into view, the skipper signaled the lockkeeper by blowing a horn or yelling "Hey-y-y-y-y-y lock!"

George Washington urged the building of canals to unite the country. He formed a company which built a series of short canals around the worst falls and rapids of the Poto-



PHOTOGRAPHS BY NATIONAL GEOGRAPHIC PHOTOGRAPHER THOMAS NEBBIA

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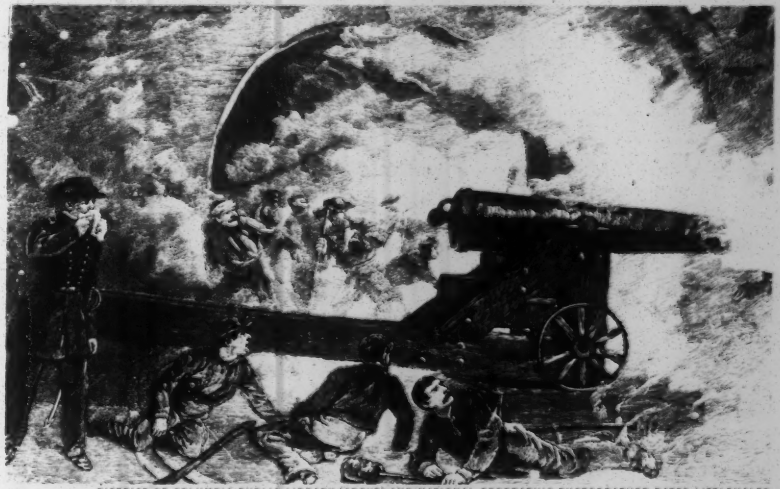


DISTRICT OF COLUMBIA PUBLIC LIBRARY (ABOVE) AND NATIONAL GEOGRAPHIC PHOTOGRAPHER BATES LITTLEHALES

The First Shot. Diorama in Fort Sumter's museum (right) depicts war's start. Weeping, exultant, Charleston ladies watch from roofs as Union men (above) return fire.

fort began returning the fire—emphatic evidence that the Union would fight to preserve itself.

In elation and trembling, Charlestonians climbed to the rooftops (above) and watched a war being born. For 34 hours the bombardment thundered. Red-hot shot from Southern guns set Sumter afire. Blinded and gasping, its garrison (above, right) fought under Major Robert Anderson until rations and ammunition ran out.

On April 13 the fort gave up. Jubilant South Carolinians came in next day with a

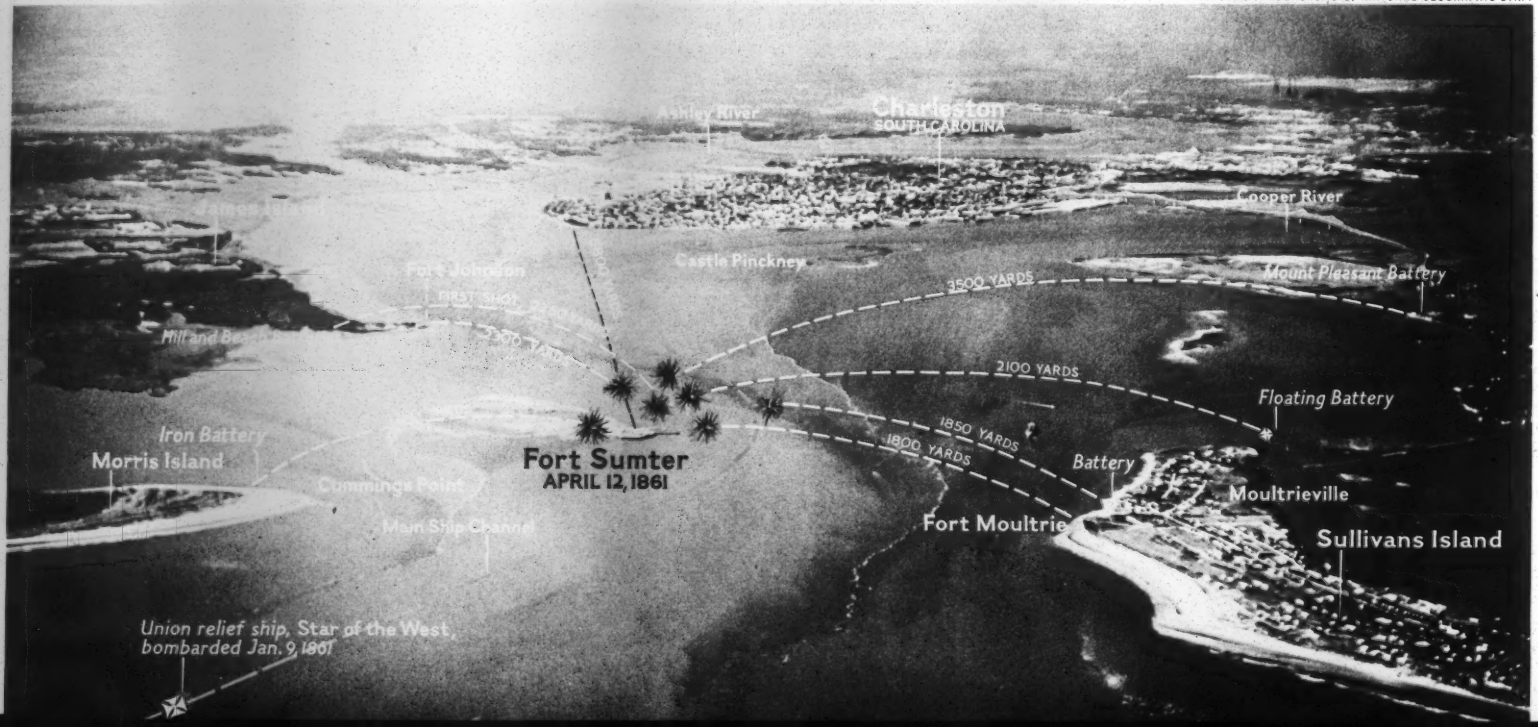
UMI

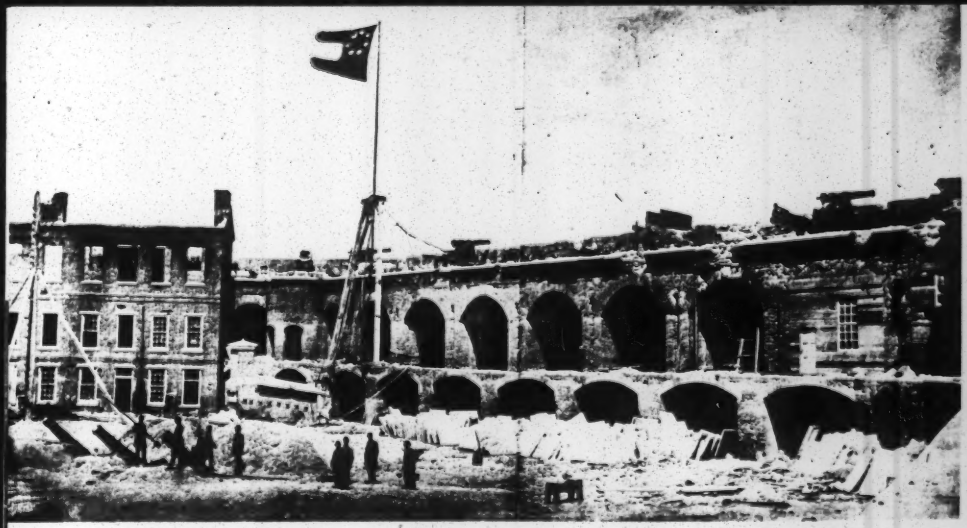
Here Is Where It Started

A CENTURY AGO this week—on April 12, 1861—citizens of Charleston, South Carolina, were jarred from sleep at 4:30 a.m. by a cannon shot. "A thrill went through the whole city," according to one man. But one of Charleston's stalwart ladies recalled, "I sprang out of bed, and on my knees prostrate I prayed as I never prayed before."

Both knew that war had come; the shot signaled the South's determination to secede from the Union. As dawn gradually lighted Charleston Harbor (below), other Confederate batteries systematically pounded Fort Sumter, symbol of the Union. At 7:30 the

THOMAS J. ABERCROMBIE, NATIONAL GEOGRAPHIC STAFF





whoop and holler and raised above the battered walls the Stars and Bars of the Confederacy (above).

No one was killed during the furious cannonade. The entire action had been gentlemanly, from the Southern commander's polite ultimatum: "We have the honor to notify you that [we] will open fire in one hour," to Major Anderson's sentimental salute as he struck his colors in defeat.

But on April 15 Abraham Lincoln called for 75,000 militiamen. The Confederacy already was mustering 100,000 volunteers; it was not to be a gay, springtime war for long. The blind anger that blasted away much of Sumter's walls would soon bloody Bull Run, sear Shiloh, and beget Gettysburg.

America was committed to the bloody tragedy of Civil War. The Sumter defeat would rankle in Union minds for four grim years. Then, the Union triumphant, Major Anderson, shaky and white, could come out of retirement to raise again over the rubble his torn battle flag; North and South could begin the long, painful process of knitting the country together again.

R.G.

Sumter today: Park historian (below) points out rooms where Union cannon fired at Fort Moultrie. This wall before the Civil War had two higher tiers.

RALPH GRAY, NATIONAL GEOGRAPHIC STAFF (BELOW) AND NATIONAL ARCHIVES

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